

MWPAAC Engineering & Planning Subcommittee

FINAL DRAFT

**Policies that Support Standards &
Procedures**

REGIONAL I/I CONTROL PROGRAM POLICIES FOR I/I REDUCTION PROJECTS

INTRODUCTION

Selecting effective engineering design standards and procedures also includes selecting policies associated with the application of the standards. Policies are necessary to guide effective I/I removal projects. They form a strong foundation for reducing the amount of infiltration and inflow that enters the public sewerage system, especially for rehabilitation standards and procedures. To that end, this section complements the Design & Engineering section of this document.

This policy section presents a wide range of topics, many of which were first introduced by representatives of Local Agencies during Regional I/I Control Program Workshops. In broad terms, the Policies address the issues of funding, public education, access to private property, inspection, permitting, liability, and storm water drainage. While the Policies include elements of the relationship between King County and the Local Agencies, their primary focus is on the relationship of the Local Agencies to their communities, contractors and customers. The material presents conceptual foundations for regional consensus, consistency and cooperation.

From the original, MWPAAC-accepted working draft of 23 policies (October 21, 2002), the number of policies included in this final draft has been reduced to 15. This reduction involved evaluating the experience gained from the I/I Program pilot projects and combining similar Policies where appropriate.

The Policies were originally separated into those addressing I/I reduction from private properties and those addressing I/I reduction from public properties. It was discovered during the pilot projects that such a division was unnecessary; thus several policies have been combined. The revised draft Policies therefore include Policies that apply to both private and public sewer systems. The Policy revisions are detailed in Appendix B, which includes the original Policies recommended by the E&P Subcommittee, lessons learned and suggestions for combining Policies from the Earth Tech consultant team, the revised Policies proposed by the Earth Tech consultant team in 2004, and the comments and decisions made by the E&P Subcommittee for this final draft document.

The following table lists the final draft Policies as approved by the E & P Subcommittee. These Policies are in support of the Standards and Procedures, are focused on actual I/I Reduction Projects and do not include all policies that will be considered in the Regional I/I Control Program.

Regional I/I Control Program

Summary of Listed Design Standards & Guidelines

Policy #1, Public Funding for I/I Reduction Projects: Public funding should be considered for all phases of I/I mitigation work on privately owned property. Funded work should include scope of work elements such as: permits, investigation, inspection and testing, any modifications to the side sewer connections and laterals, connections to public systems, restoration of disturbed areas (including landscaping, sidewalks, driveways, and rights-of-way) and post-rehabilitation testing and enforcement. Environmentally infeasible &/or prohibitively expensive modifications should be considered for variances/waivers.

Policy #2, Public Awareness of I/I: Educational Materials: King County, in conjunction with the Local Agencies, shall create and promote regional educational programs to introduce the general public to I/I as an issue, to explain the potential benefits from I/I mitigation efforts, and to inform the public of their responsibilities related to the I/I problem. Educational/informational materials shall be designed such that each local jurisdiction will be able to modify them to meet their local needs. Additionally, King County shall function as a central clearinghouse in responding to inquiries about the Regional I/I Control Program.

Policy #3, Public Awareness of I/I: Responsibility for Community: Unless otherwise specified or negotiated in the IGA, for each specific I/I reduction project being led by a Local Agency, the Local Agency shall be responsible for community education/involvement. Unless otherwise specified or negotiated in the IGA, if King County is the Lead Agency, the County shall be responsible for community education/involvement.

Policy #4, Access to Private Property for I/I Reduction and Control: The Local Agency shall pass the necessary ordinances/resolutions and develop the appropriate access agreements that allow each agency or its agents to gain access to private property, such as a right of entry or a construction and inspection easement. These agreements will allow certain actions related to I/I reduction and control, such as conducting a side sewer and/or lateral inspection; construction rehabilitation; or conducting code enforcement activities.

Policy #5, Inspection Training: To promote region-wide consistency, King County in conjunction with the Local Agencies shall provide training opportunities on the I/I Control Program to agency representatives. The training material will include a checklist of guidelines for best practices and the adopted Regional I/I Control Standards, Procedures & Policies.

Policy #6, Limiting Liability: If public resources support any portion of the I/I reduction work on privately owned property, then the Lead Agency shall establish a process to manage and limit its liability. The potential site and in-ground liability issues shall be a part of the I/I planning and design process, including an up-front agreement on when the jurisdiction's liability will begin and end.

Policy #7, Bonding, Licensing, Insurance and Warranty Provisions: The Lead Agency shall be responsible for ensuring that, for publicly funded I/I reduction projects, the construction contract includes appropriate bonding, licensing, insurance, and warranty provisions to ensure satisfactory completion of the project and warranty of the project for a sufficient amount of time (recommended minimum 12 months).

Policy #8, Storm Water Drainage Ordinances: Where I/I work on private or public property results in the diversion of storm water drainage, and there exists a storm water system, then the I/I work shall involve meeting the provisions of the controlling jurisdiction's current "storm water drainage" ordinances. Jurisdictional approval must be obtained.

<p><u>Policy #9, Responsibility for Storm Water Drainage</u> Where I/I work on private property results in the diversion of storm water and an adequate storm water system does not exist, then the private property owner bears responsibility for discharging the storm water drainage to an appropriate location.</p> <p>Where I/I work on public property results in the diversion of storm water and an adequate storm water system does not exist, the Local Agency or Associated Agency bears the responsibility for discharging the storm water drainage to an appropriate location.</p>
<p><u>Policy #10, Infeasible and/or Prohibitively Expensive Modifications:</u> Where an I/I reduction project would result in the diversion of storm water drainage, and the modifications required to properly discharge the storm water are deemed to be infeasible &/or prohibitively expensive (for the property owner), consider giving the property owner choice of disconnection of illicit connection or surcharge.</p>
<p><u>Policy #11, Property Restoration:</u> The Lead Agency shall establish a standard for property restoration before initiating any I/I work (including landscaping, sidewalks, and driveways). Public property restoration is governed by Local Agency or Associated Agency codes or ordinances.</p> <p>Options can include:</p> <ol style="list-style-type: none"> 1 – “Restoration as near as possible to pre-construction condition” 2 – “Basing value on restoration to as near as possible to pre-construction condition, make up front property owner payment with signed waiver”
<p><u>Policy #12, Contractor Qualifications:</u> The Lead Agency shall develop in the bid specifications specific minimum experience requirements for contractors to ensure that the contractor hired will have experience in the type of work they are to perform.</p>
<p><u>Policy #13, Required Permits:</u> The Local Agency should obtain all permits feasible, including the SEPA, HPA, 404, or other State or Federally required permits. The contractor should obtain permits as detailed in the specifications such as the building, road or utility, ROW use, &/or clearing and grading permits. The permits required to be obtained by the contractor should be specifically listed in the bidding documents.</p>
<p><u>Policy #14, Cooperative Efforts:</u> For all permit needs, the jurisdictions including King County, the Local Agency, and the Associated Agency (if pertinent) will work cooperatively and collaboratively.</p>
<p><u>Policy #15, Revisions to Standards, Procedures, and Policies:</u> MWPAAC shall review and make recommendations on proposed revisions to the Regional I/I Control Program Standards, Procedures, & Policies. MWPAAC shall recommend whether or not a revision should be adopted as part of the Regional I/I Control Program.</p>

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I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:

**Program Design -
Public Funding and Scope of Work**

The extent of public intervention and assistance in reducing or eliminating I/I from Private properties will be shaped by a series of public policy choices. Some of the choices, like incorporating extensive surface and sub-surface restoration of private property, may require a series of adjunct policies. Other approaches may require only minor modification of local codes and regulations.

POLICY 1

Public funding should be considered for all phases of I/I mitigation work on privately owned property. Funded work should include scope of work elements such as: permits, investigation, inspection and testing, any modifications to the side sewer connections and laterals, connections to public systems, restoration of disturbed areas (including landscaping, sidewalks, driveways, and rights-of-way) and post-rehabilitation testing and enforcement. Environmentally infeasible &/or prohibitively expensive modifications should be considered for variances/waivers.

EXPLANATION

- ✦ Because maintenance and operation of the sanitary sewer system is for the public health and welfare, ensuring the elimination (or major reduction of) excessive I/I is usually considered a legitimate use of public funds.
- ✦ This alternative focuses on all types of private property, including residential commercial, and industry.

POTENTIAL LOCAL AGENCY IMPACTS

- ✦ Given the expenditure required for public funding of an extensive program, the Regional I/I Control Program would probably be initiated in selected mini basins (or smaller areas) with excessive I/I flow rates and with cost-effective solutions.

POTENTIAL KING COUNTY IMPACTS

- ✦ County may need to assist with code enforcement funding.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ✦ Property owners in a selected area would have to participate in this program.
- ✦ Utility rates would increase to pay for the I/I mitigation work; although substantial grant funding could reduce the burden on the local rate base.
- ✦ With full funding, issues such as constructing the program to accommodate economic hardship (of specific individuals as well as for customer classes such as those with fixed and low-income) would not be necessary. Administrative costs could probably be reduced through economies of scale.

POTENTIAL REGIONAL IMPACTS

- ✦ The Local Agency or King County could directly employ contractors.
- ✦ Before rehabilitation work, the following areas would be “negotiated” with the property owner: a repair and rehabilitation agreement covering access to the property, and indemnifications and mandatory maintenance of the line by the property owner.

I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:

Community Education and Involvement – Regional Education Programs

The I/I Control Program will result in the expenditure of public funds. There will be an array of inquiries, complaints, questions and suggestions from the general public, ratepayers, tenants and property owners. The manner in which these are tracked and resolved will have a major impact upon the public perception of the Regional I/I Control Program. For acceptance as a necessary public program, members of the public will need to understand the purposes of the regional program, and its benefits to the community and to individual property owners and rate payers.

POLICY 2

King County, in conjunction with the Local Agencies, shall create and promote regional educational programs to introduce the general public to I/I as an issue, to explain the potential benefits from I/I mitigation efforts, and to inform the public of their responsibilities related to the I/I problem. Educational/informational materials shall be designed such that each local jurisdiction will be able to modify them to meet their local needs. Additionally, King County shall function as a central clearinghouse in responding to inquiries about the Regional I/I Control Program.

EXPLANATION

- ✦ Input from all of the focus group sessions associated with the Regional I/I Control Study stated that public education would be the key to addressing I/I from private property.
- ✦ The public's knowledge about storm and sanitary sewer systems and, in particular, I/I issues, is limited. Generating understanding of a program of this size and complexity is necessary in order to gain public support.
- ✦ A regional education program would explain the benefits of I/I reductions to:
 - the county-wide sewer system
 - the costs and benefits to the public, and
 - the benefits to private property owners.
- ✦ A central clearinghouse is easier to establish and publicize and it simplifies managing trained personnel. Its operation would be uniform and would help establish and maintain system-wide policies and standards. The staff of a centralized clearinghouse could be divided into geographic sections to allow for greater familiarity with local concerns and jurisdictions.
- ✦ Unit costs for such a centralized system should be lower than that of local offices and this might also allow for more comprehensive services: specialized help, longer hours of operation and better staff training.
- ✦ Communication between a centralized clearinghouse and a system-wide administration would be easier, while communications with the various sewer districts, Local Agencies, local jurisdictions and contractors could be more difficult.

POTENTIAL LOCAL AGENCY IMPACTS

- ✦ The Local Agency would have less work in developing materials and operating local educational programs. If they desire, Local Agencies and jurisdictions could revise information or just insert the agency's logo.

- ✦ Decisions regarding resolution of issues would follow general, system-wide protocols. These may reduce the influence and specific decision-making powers of the Local Agency.
- ✦ Using trained customer service representatives who use consistent approaches would emphasize the *regional* nature of the I/I Control Program and buffer the Local Agency from dissatisfied individuals.
- ✦ It would allow for the wide distribution of contact information for I/I projects.
- ✦ A regional program should be coordinated with, and inform the public about, the role of Local Agencies and jurisdictions. A local staff member assigned to answer questions might help avoid the public's confusion about the program and the roles and responsibilities.

POTENTIAL KING COUNTY IMPACTS

- ✦ King County would prepare and disseminate public educational material explaining the I/I Control Program.
- ✦ A countywide educational program would allow the County to establish a uniform “umbrella”, and maintain common themes and ideas about the I/I Control Program.
- ✦ A countywide program would enable the distribution of overall program explanations and designs. It would also allow for more efficient distribution of information.
- ✦ The staff of a centralized clearinghouse would likely be better at understanding the system-wide issues but less familiar with local concerns.
- ✦ The program would have a stronger County identification.
- ✦ The clearinghouse might include a single phone number, advertised broadly and easily found.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ✦ An awareness that changes in managing sewer and storm water is about to take place.
- ✦ Materials are carefully tailored to areas with problems and geared to specific Local Agency needs; regional program ideas remain.
- ✦ Ongoing Public Education – In order to maintain the rehabilitated sewer system, the property owner will need to be reminded of the importance of keeping major landscaping and buildings out of the utility maintenance easement area.
- ✦ Interested parties would not have to search for whom to contact regarding the work to be, or being, done on their property. It might reduce the frustration of dealing with a “bureaucracy”. On the other hand, those who continue to be dissatisfied may turn to local political representatives or agency managers for more satisfactory relief.

POTENTIAL REGIONAL IMPACTS

- ✦ The initial media campaign would have a coordinated and uniform message (like the information on drought and energy management) with tweaks for each local area to meet their specific needs and issues.
- ✦ Such a program could use various regional resources including: schools, libraries, web sites, the media and mailing stuffers. This would reinforce the concept that I/I impacts the region and that the solutions are regional.
- ✦ The program would have a stronger regional approach.

* See Appendix D for samples for pilot projects

I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:

**Community Relations – Specific Project
Community Education and Involvement**

I/I reduction projects will disrupt public and private property. There will be an array of inquiries, complaints, questions and suggestions from the general public, ratepayers, tenants and property owners. The manner in which these are tracked and resolved will have a major impact upon the perception of the Regional I/I Control Program. For acceptance of specific I/I reduction projects, members of the public need to understand the purposes of the project, its benefits to the community and to individual property owners.

POLICY 3

Unless otherwise specified or negotiated in the IGA, for each specific I/I reduction project being led by a Local Agency, the Local Agency shall be responsible for community education/involvement. Unless otherwise specified or negotiated in the IGA, if King County is the Lead Agency, the County shall be responsible for community education/involvement.

EXPLANATION

✦ It is generally better for the agency that is leading the project to be responsible for community relations, since they are most familiar with the specifics of the project and most aware of community concerns. Flexibility is provided, however, through the specific IGA so that, for each project, community relations' responsibility can be assigned to the Local Agency and/or King County as conditions merit.

POTENTIAL LOCAL AGENCY IMPACTS

✦ Local jurisdictions have greater responsibility with locally managed projects: Local Agencies and jurisdictions would implement the local design and implementation of the project-related educational and community involvement material.

✦ If King County manages the project, King County would be most familiar with the project and generally be in the best position to lead community relations efforts, decreasing Local Agency staff and resource needs.

✦ Flexibility in the IGA allows the Local Agency great latitude in determining responsibility for community relations.

✦ A District may not have the legal authority or the political backing to resolve property issues within a city's boundaries.

✦ Public education will have to be carefully tailored to areas with problems.

POTENTIAL KING COUNTY IMPACTS

✦ Less opportunity to generate regional approach.

✦ The County would usually not be the focal point for individual customer service issues for projects led by Local Agencies.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ⊕ Individuals might feel that their elected local representatives would be more understanding and sympathetic to their concerns since materials are geared to their specific needs by the Local Agency.
- ⊕ If an individual disagreed with a staff member's decision, a local problem resolution process may be more convenient and familiar.
- ⊕ No "economies of scale" in comparison to regional system.

POTENTIAL REGIONAL IMPACTS

- ⊕ No regional approach.

* See Appendix D for samples from pilot projects

I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****Rehab Planning, Oversight, Inspection, Monitoring and Testing – Right of Entry**

With specific exceptions, individuals cannot enter or alter property owned by another individual without explicit permission (authority for utility representatives to access private premises for the purpose of inspecting and determining code compliance can be legislated for public health and welfare). Yet initial follow-up and inspection of the condition and installation of public sewer lines and private sewer and storm drainage connections is a key to ensuring that I/I is not occurring. New standards need to be developed to ensure that the system remains intact and maintained. The right of entry for purposes other than verification of code compliance usually requires either a written agreement between the public entity and the private property owner or a notice of potential legal action.

POLICY 4

The Local Agency shall pass the necessary ordinances/resolutions and develop the appropriate access agreements that allow each agency or its agents to gain access to private property, such as a right of entry or a construction and inspection easement. These agreements will allow certain actions related to I/I reduction and control, such as conducting a side sewer and/or lateral inspection; construction rehabilitation; or conducting code enforcement activities.

EXPLANATION

✦ The right of entry to verify code compliance is usually limited in several ways, the most basic of which is that entry must occur at reasonable times. This and other limiting provisions listed below may be adopted by the utility's administration and may not be codified.

- Entry only by individuals with "proper" identification;
- Entry only with prior notice;
- Entry only with written information regarding the nature of the inspection and with the findings of the investigation (notice of non-compliance with which specific portions of the code; notice of remedies and/or potential penalties).

✦ The method(s) used for code compliance enforcement, inspection and testing or monitoring is not implicitly or explicitly included in this basic right of entry.

✦ Right of entry agreements, easements and legal notices will vary in complexity and scope of action though with legal advice some basic policy procedures can be drafted and used in routine actions. Unique agreements would be drafted for complex or unusual situations. General delimiters for access agreements include scope of public action, result of property damage or personal injury, and hold harmless and indemnification provisions. Administrative use of these legal instruments depends upon the authority granted by the Local Agency's legislative body.

POTENTIAL LOCAL AGENCY IMPACTS

✦ Allows the flexibility for Local Agencies to select and implement their preferred programmatic approach (e.g., all new side sewers could be located in an easement area that allows for future entry by the Local Agency to perform inspections and work without a separate right-of-entry agreement; side sewer permits could be expanded to include the entire residential drainage system).

✦ Local Agencies will undertake different actions according to their I/I reduction projects and applicable local regulations. Since most municipalities' codes allow only sewerage to enter the sanitary

sewer system, using the basic right of entry to investigate code compliance could be the first action to control improper inflow from private property. Once the initial I/I control remedies are in place, periodic investigation of code compliance may involve increased resources such as: inspectors, code compliance officers, engineers and/or attorneys. Record keeping would be crucial to track follow-up actions and inspection schedules.

- ✦ Utility storm water and sanitary sewer codes may have to be amended to include right-of-entry authority.

- ✦ The ease or difficulty of obtaining specific right-of-entry agreements or easements will depend on the property's I/I contribution to the system and the Policies and Standards of the I/I Control Program, e.g., the scope of work or the amount of restoration.

- ✦ Coordination between areas of responsibilities would be key, e.g., building permits and sewer permits; building and utility inspectors; maintenance, engineering and CIP personnel.

POTENTIAL KING COUNTY IMPACTS

- ✦ County Council may have to pass an ordinance granting Local Agencies authority.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ✦ Many individuals may not realize that municipal representatives have the authority to enter their property to perform code compliance inspections. Municipal employees and legislators may have to cope with a range of reactions from accommodation to active resistance. These actions can be anticipated and a plan of action established.

- ✦ The types of private improvements (and landscaping) in the easement area should be restricted to simplify and standardize any future side sewer work and to prevent side sewer deterioration. There should be restrictions to the property owner making changes in side sewer location when remodeling occurs.

- ✦ The residential property owner's contractor would remain responsible for the work performed meeting code and that it is "signed off" by the jurisdiction's inspector.

- ✦ The cost of permits could increase to cover the increased intensity of service or the cost could be absorbed within the general residential rate base.

POTENTIAL REGIONAL IMPACTS

- ✦ If an aggressive code compliance investigation program is initiated without the follow-up of code enforcement, there will be no change in the amount of I/I entering the system from private property.

I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****Rehabilitation Planning and Oversight – Inspection and Testing**

Initial and follow-up inspection and investigation of the condition and installation of public sewer lines and private sewer and storm drainage connections is a key to ensuring that neither inflow nor infiltration is occurring. The type and extent of inspection and investigation could vary depending upon the focus, extent and the approach selected to remove I/I from privately owned property and public sewer lines.

POLICY 5

To promote region-wide consistency, King County in conjunction with the Local Agencies shall provide training opportunities on the I/I Control Program to agency representatives. The training material will include a checklist of guidelines for best practices and the adopted Regional I/I Control Standards, Procedures & Policies.

EXPLANATION

- ✦ Because inspections are such an integral part of controlling I/I from private property, specially trained staff would ensure that the inspections occur with consistency and uniformity.
- ✦ The inspections could include a regionally uniform variety of tasks, such as: checking all connections, testing all lines, verifying the functionality of on-site and/or off-site storm drainage management, and ensuring restoration of sidewalks, driveways and rights of way.

POTENTIAL LOCAL AGENCY IMPACTS

- ✦ Side sewer permits would be expanded to include the entire residential drainage system.
- ✦ Coordination between areas of responsibilities would be key, for example, building permits and sewer permits; inspectors and paving crews; sewer maintenance/storm water maintenance and inspectors; and inspectors and maintenance, engineering and CIP personnel.

POTENTIAL KING COUNTY IMPACTS

- ✦ Workload and equipment sharing could produce an economy of scale.
- ✦ Preparation of training material and course curriculum as well as scheduling and holding training sessions would be County responsibilities.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ✦ The property owner's contractor would remain responsible for ensuring work performed on private residential property meets code and has been "signed off" by the Local Agency's "I/I Control Inspector".
- ✦ The cost of this expanded inspection and testing service could be included in the jurisdictions' sewer permit, in the base ("METRO") wholesale rate, or be absorbed within a newly created I/I rate component.

POTENTIAL REGIONAL IMPACTS

- ✦ Cross-training and a widened skill base (including storm water, plumbing, residential drainage and sanitary sewer guidelines and codes) may provide the foundation for an inter-disciplinary approach to problem solving, and a basin perspective in addition to a jurisdictional perspective.

✚ Some form of auditing might be appropriate to ensure the inspections, investigations and tests are consistent with the Regional I/I Control Program Standards and Guidelines.

I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****Rehabilitation Planning and Oversight – Liability**

All phases of the I/I work on privately owned property could create liability issues. Some liability issues such as negligence, is a recognized concern. Side sewer and other excavation on private property may result in some special liability issues. The standards of work and documentation of conditions on private land are more varied than those found on public property and public right-of-ways. Potential liability matters may be limited in various ways.

POLICY 6

If public resources support any portion of the I/I reduction work on privately owned property, then the Lead Agency shall establish a process to manage and limit its liability. The potential site and in-ground liability issues shall be a part of the I/I planning and design process, including an up-front agreement on when the jurisdiction's liability will begin and end.

EXPLANATION

- ✦ When digging on private land, various types of unexpected conditions and systems are likely to be found, for example: underground oil tanks and contaminated soils, sprinkler systems and water lines, “invisible” dog fences, non-conforming in-use wells and septic systems, electrical and data cables, etc. Some of these conditions and systems are likely to be found in the areas of any side sewer work and pose a liability issue to the homeowner, contractor, governmental agency and/or the general public.
- ✦ Field reports suggest that about 25% of oil tanks leak. If contaminated soil is found during an excavation, then remediation is required and the issue of liability would have to be addressed.

POTENTIAL LOCAL AGENCY IMPACTS

- ✦ Pre-digging protocols such as inspections to identify underground infrastructures and/or contaminated soil could reduce the potential liability disputes and costs.
- ✦ Resolution of disputes may become an issue that will need to be addressed by Local Agency staff and/or their attorneys.
- ✦ The responsible jurisdiction will *need to work closely with the homeowners, no matter what.*

POTENTIAL KING COUNTY IMPACTS

- ✦ If King County is the Lead Agency, inspectors and administrative staff will be necessary to assist in minimizing liability.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ✦ Property owners may refuse permission to inspect or test for potential liability issues and might prefer not to know about such issues.
- ✦ Property owners may end up having to address the problem of soil contamination.
- ✦ Property owners will desire that the work minimize disruption to property existing improvements and landscaping.

POTENTIAL REGIONAL IMPACTS

- ✦

I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:

Contractor Bonding, Licensing and Warranty

POLICY 7

The Lead Agency shall be responsible for ensuring that, for publicly funded I/I reduction projects, the construction contract includes appropriate bonding, licensing, insurance, and warranty provisions to ensure satisfactory completion of the project and warranty of the project for a sufficient amount of time (recommended minimum 12 months).

EXPLANATION

- ⊕ Contractors for public projects must be licensed, bonded and insured. For publicly funded projects, agencies generally establish standards for contractor bonding, end of project retainage, and warranties that ensure the completed facilities will continue to function as intended for a reasonable period of time.
- ⊕ A schedule of required contractor warranties would be established at the beginning of a project. For example, pipe performance would have a longer warranty requirement than pumps.

POTENTIAL LOCAL AGENCY IMPACTS

- ⊕ A “retainage” could be required to be held back after “substantial completion” of the work. The retainage would be released once all punch list items have been completed and final inspections performed.
- ⊕ Bonding, retainage and warranties reduce the likelihood of poor work and future maintenance/repair requirements. However, such standards increase contractor costs and prices.
- ⊕ All contractors could be required to maintain a performance bond equal to a pre-determined percentage of the project cost.
- ⊕ Such standards increase contractor costs and prices.

POTENTIAL KING COUNTY IMPACTS

- ⊕ Bonding, retainage and warranties reduce the likelihood of poor work and future maintenance/repair requirements.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ⊕ Higher up front costs, but lower maintenance costs.
- ⊕ Better quality control of the I/I work.
- ⊕ Any allowed “do it yourself” work would most likely not be subject to bonding or warranty requirements.

POTENTIAL REGIONAL IMPACTS

- ⊕ Better long term I/I control.

I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:**On-site Storm Drainage Management**

If storm water is diverted away from the existing sanitary sewer system, then alternatives may need to be found for the diverted storm water. Property owners, Local Agencies and Associated Agencies may need new options for surface and ground water drainage management.

POLICY 8

Where I/I work on private or public property results in the diversion of storm water drainage, and there exists a storm water system, then the I/I work shall involve meeting the provisions of the controlling jurisdiction's current "storm water drainage" ordinances. Jurisdictional approval must be obtained.

EXPLANATION

✚ In areas with an existing public storm water management system, all drainage diverted from the sewer system could be discharged into the storm water system, provided that:

- The jurisdiction controlling the public storm water system approves the connection; and
- There are sound design options, capacity and gravity flow.

POTENTIAL LOCAL AGENCY IMPACTS

✚ The capacity of the storm water system would have to be evaluated and a determination made regarding these new loads. Some of the storm water systems may have to be upgraded. The costs for engineering analysis and design, construction and connections may be significant. Grants from the County's Surface Water Utility or the Public Works Trust Fund might help defray the cost of new and/or expanded storm water systems.

✚ This policy assumes that public funds for the removal of I/I would pay for the permits, engineering and other expenses associated with connecting storm water to a public system.

POTENTIAL KING COUNTY IMPACTS

✚ The County may consider ensuring adequate capacity of public storm water systems as an adjunct cost to the I/I program, but that would significantly reduce funds available for directly reducing regional I/I.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

✚ This will likely improve drainage and water intrusion problems for the affected homes and properties. The cost of the lines and connections to the storm water system will depend upon individual conditions.

✚ Potential increased storm water costs, including costs to connect to the storm sewer system.

POTENTIAL REGIONAL IMPACTS

✚

I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****On-site Storm Drainage Management**

If storm water is diverted away from the existing sanitary sewer system, then alternatives may need to be found for the diverted storm water. Property owners, Local Agencies and Associated Agencies may need new options for surface and ground water drainage management.

POLICY 9

Where I/I work on private property results in the diversion of storm water and an adequate storm water system does not exist, then the private property owner bears responsibility for discharging the storm water drainage to an appropriate location.

Where I/I work on public property results in the diversion of storm water and an adequate storm water system does not exist, the Local Agency or Associated Agency bears the responsibility for discharging the storm water drainage to an appropriate location.

EXPLANATION

✚ Connecting residential storm water systems to the public sewer system is illegal. Therefore, illicit connections should be removed. This is a provision of the contract between the Local Agencies and King County.

✚ Properties with impermeable and semi-permeable surfaces have storm water drainage requirements. For example: most roofs and driveways, lawns and hard packed soils don't allow for storm water absorption, retention or evaporation. Alternative practices can be used to reduce or eliminate the need for off site storm water systems. For example:

- Surface and ground water drainage can be collected and directed to location(s) on the property where the water can drain into the ground by means of an energy dissipation basin (French drain). The feasibility and effectiveness of such systems depend upon its design, lot size and topography, soil type and local area conditions. The complexity of energy dissipation basins will also depend upon local conditions and drainage requirements.
- Poor maintenance can increase and exacerbate storm water problems. Tree limbs that overhang houses tend to increase the need for gutter and drain line cleaning/maintenance. Improper soil drainage at the perimeter of structures can increase basement and crawl space flooding.
- Special landscaping practices can increase storm water absorption and retention.
- Roofs with a planted sod layer can hold and evaporate storm water.
- Driveways can be made out of porous pavers and other materials that allow for water absorption.
- Rain barrels and cisterns can be used to recycle storm water for gardening and some domestic use.
- Ponds can be used to hold and evaporate storm water.

POTENTIAL LOCAL AGENCY IMPACTS

- ⊕ Design and construction review may be required. As a first measure, this could be a lower cost alternative for Local Agencies than side sewer repair. If properly designed, constructed and inspected, once in place, there would be little impact on Local Agencies.
- ⊕ Reduction of storm water flow into the sanitary and storm water system.

POTENTIAL KING COUNTY IMPACTS

- ⊕ On site drainage system will result in lower storm water inflow into the County's sewage conveyance and treatment system.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ⊕ Appropriate management of storm water flow on private property could have direct benefits to the homeowners and the public sanitary and storm water systems, such as:
 - Proper use of on-site storm water management systems would likely result in dryer homes, basements and crawl spaces.
 - Dryer homes tend to have fewer problems with wood destroying organisms, mold and mildew. Dryer homes have longer lasting furnaces, roofing and interior surfaces.
 - Many of the defects that are likely to be found in such inspections have low cost and low impact solutions. Such on site systems usually don't require extensive digging or interference with decks or in-ground systems such as water lines or oil tanks.
 - When properly designed, they require a modest amount of maintenance.

POTENTIAL REGIONAL IMPACTS

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I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****On-site Storm Drainage Management**

If storm water is diverted away from the existing sanitary sewer system, then alternatives may need to be found for the diverted storm water. Property owners, Local Agencies and Associated Agencies may need new options for surface and ground water drainage management.

POLICY 10

Where an I/I reduction project results in the diversion of storm water drainage (e.g., removal of illicit connections), and the modifications required to properly discharge the storm water are deemed to be infeasible &/or prohibitively expensive (for the property owner), consider giving the property owner a choice of disconnection of illicit connection or surcharge.

EXPLANATION

✚ Connecting residential storm water systems to the public sewer system is illegal. Therefore, illicit connections should be removed. This is a provision of the contract between the Local Agencies and King County. However, if re-routing the storm water drainage, to either a public storm water management system or another appropriate location is deemed infeasible &/or prohibitively expensive (for the property owner), the alternative of a surcharge may be offered.

POTENTIAL LOCAL AGENCY IMPACTS

- ✚ If a property owner chooses to pay a surcharge, rather than to disconnect an illicit connection, utility rate revenue will increase.
- ✚ Additional administrative processes will be necessary.

POTENTIAL KING COUNTY IMPACTS

✚ If a property owner chooses to pay a surcharge, rather than to disconnect an illicit connection, a smaller amount of I/I reduction may be achieved in the County's regional sewer system than the County expected.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

✚ A private property owner with an illicit connection may have the opportunity to reduce the cost of compliance.

POTENTIAL REGIONAL IMPACTS

✚ If private property owners choose to pay surcharges instead of re-routing storm water drainage from illicit connections, a smaller amount of I/I reduction may be achieved in the regional sewer system than the County expected, and the timeline for building new regional sewer capacity may be advanced. This could increase sewer rates region-wide earlier than expected.

I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:**Post-Rehabilitation Management – Restoration**

Many of the private property I/I mitigation options can interfere with private property conditions, especially buildings, site work and landscaping. Restoration of these disturbed areas could be expensive and complicated. A poorly understood or badly managed restoration policy and program could lead to significant public distrust, concerns, and problems. A policy is required that outlines the roles, responsibilities and any limits on such restoration work.

POLICY 11

If confirmed by legal counsel.

The Lead Agency shall establish a standard for property restoration before initiating any I/I work (including landscaping, sidewalks, and driveways). Public property restoration is governed by Local Agency or Associated Agency codes or ordinances.

Options can include:

- 1 – “Restoration as near as possible to pre-construction condition”
- 2 – “Basing value on restoration to as near as possible to pre-construction condition, consider up front property owner payment with signed waiver”

EXPLANATION

- ⊕ Some amount of restoration of private properties would be part of the I/I reduction program.
- ⊕ Prior to the start of any I/I work, the property would be inspected and photographed, and relevant improvements and conditions would be thoroughly documented.
- ⊕ The public funds used for this purpose would compensate for all of the agreed to restoration work or up front payment in recognition of the public benefits derived from the I/I program.
- ⊕ Since certain plant/vegetation types are not easily restored, a “restoration to pre-construction condition” standard is not always possible.
- ⊕ Disagreements would use the preferred method as chosen from the alternatives under **Policy 4**.

POTENTIAL LOCAL AGENCY IMPACTS

- ⊕ A more complex program that recognizes the impact of the I/I program upon private property.

POTENTIAL KING COUNTY IMPACTS

- ⊕ Higher program cost and potential for property owner dissatisfaction with the extent or quality of the restoration work.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ⊕ Impacted Property Owners – Depending on the choice made, property impacts could be small to large, but property owner would receive rehabilitated side sewer.
- ⊕ Ratepayers – Increases the cost of the I/I Control Program and therefore might result in higher rates.

POTENTIAL REGIONAL IMPACTS

- ⊕ Depending on choice made, I/I reduction at a higher cost.

I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****Contractor Qualifications**

A critical success factor for reducing I/I is to make sure contractors have experience using acceptable materials and skilled labor resources to perform construction and I/I rehabilitation of public sewer systems. One way to assure the qualifications of the contractors is through a review of their past performance and bonding and financial ability, and of the experience of their key supervisory staff. Contractor qualifications often become an issue during the selection process on public projects since the primary basis of award is “Low Bid”.

POLICY 12

The Lead Agency shall develop in the bid specifications specific minimum experience requirements for contractors to ensure that the contractor hired will have experience in the type of work they are to perform.

EXPLANATION

- ⊕ The ability to require contractors to meet certain minimum experience conditions can result in better I/I reduction projects.
- ⊕ Prior experience with specialized sewer technologies is necessary to ensure correct handling and application of these technologies. Prior experience with construction such as tunnels, systems restoration/rehabilitation, and deep excavation is also necessary.

POTENTIAL LOCAL AGENCY IMPACTS

- ⊕ Assures higher quality work.

POTENTIAL KING COUNTY IMPACTS

- ⊕ Greater probability of highest quality sewer systems and thus less potential for I/I in the future.
- ⊕ Possible requirements for “Regional” minimum experience standards for sewer contractors hired by the County to assure more consistent construction.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ⊕ Assurance of quality systems, lower potential for future repair/replacement, better bids and less chance for disputes.

POTENTIAL REGIONAL IMPACTS

- ⊕ Better overall sewer systems and less potential for I/I in the future.
- ⊕ Reduces potential for contractors lacking adequate experience to be able to bid on public sewer work.

I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:**I/I Reduction Projects – Permits**

Permits and conditions are usually required on I/I reduction projects. Responsibility for obtaining these permits can vary. This policy gives general guidance as to how this should be handled.

POLICY 13

The Local Agency should obtain all permits feasible, including the SEPA, HPA, 404, or other State or Federally required permits. The contractor should obtain permits as detailed in the specifications such as the building, road or utility, ROW use, &/or clearing and grading permits. The permits required to be obtained by the contractor should be specifically listed in the bidding documents.

EXPLANATION

⊕ Several permits may be required for work on I/I reduction projects. Project environmental permits should be obtained by the Local Agency, while permits such as building, utility and ROW should be obtained by the contractor.

POTENTIAL LOCAL AGENCY IMPACTS

⊕ The Local Agency would be responsible for obtaining those permits not specifically related to construction as part of its administrative duties.

⊕ Potentially higher program cost.

POTENTIAL KING COUNTY IMPACTS

⊕ If the IGA designates King County as responsible for obtaining permits, additional King County resources will be necessary.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

⊕ Permits and conditions associated with permits help assure that public concerns and issues are addressed and mitigated.

POTENTIAL REGIONAL IMPACTS

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I/I POLICY CATEGORY:

Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)

I/I CONTROL POLICY ISSUE:**I/I Reduction Projects – Permits**

Because there is a likelihood that multiple jurisdictions will be involved in obtaining permits, it is necessary to encourage cooperative, coordinated efforts.

POLICY 14

For all permit needs, the jurisdictions including King County, the Local Agency, and the Associated Agency (if pertinent) will work cooperatively and collaboratively.

EXPLANATION

⊕ Permit efforts in the I/I program will likely require multiple jurisdictions, and coordinated, cooperative efforts will allow for better communications and permit processing.

POTENTIAL LOCAL AGENCY IMPACTS

⊕ Coordination will be necessary with King County and the Associated Agency.

POTENTIAL KING COUNTY IMPACTS

⊕ Coordination will be necessary with the Local Agency and the Associated Agency.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

⊕ Coordinated, cooperative efforts will save money and result in better projects.

POTENTIAL REGIONAL IMPACTS

⊕ Coordinated, cooperative efforts will increase overall communication in the I/I Control Program.

I/I POLICY CATEGORY:**Policy Considerations for Regional I/I Reduction Projects and Control Program That Support the Standards and Procedures (Applies to Public and Private Systems)****I/I CONTROL POLICY ISSUE:****Revisions of Standards and Guidelines**

As new experience, technology and information support changes in the regional standards, a method to revise the standards will be needed. Revisions may be of a regional, uniform nature or they may be unique to one or more of the Local Agencies. If Local Agencies individually revise standards, over time, the standards could vary from the regional “model”; although, the degree and significance of the variance are difficult to predict.

POLICY 15

MWPAAC shall review and make recommendations on proposed revisions to the Regional I/I Control Program Standards, Procedures, & Policies. MWPAAC shall recommend whether or not a revision should be adopted as part of the Regional I/I Control Program.

EXPLANATION

✦ MWPAAC is the official representative body for the Local Agencies who are served by the King County Wastewater Treatment Division. It is a group recognized by the Local Agencies and the County as the arena for discussing and recommending policies that affect all the agencies. King County is also a member of MWPAAC.

✦ The underlying assumption for adoption of Regional I/I Control Standards is that the standards provide a uniform foundation for comparing and evaluating engineering techniques regardless of location within the region. Validation of information will not be scientifically valuable if different standards are applied to solve similar I/I control problems. Disallowing independent revision of standards would reduce, if not eliminate, variability from the regional “model”.

POTENTIAL LOCAL AGENCY IMPACTS

✦ As part of the decision-making process, the Local Agencies would consider whether or not to actively participate on the MWPAAC Subcommittee – weighing the consequences for their agency.

✦ For any recommended changes to the I/I Control Program, each Local Agency will have the ability to review and provide input on that particular change.

✦ Local Agencies would not have the unilateral authority to make revisions.

✦ As part of the regional decision-making process, the Local Agencies would abide by the recommendations of the MWPAAC vote as they negotiate Intergovernmental Agreements with King County.

POTENTIAL KING COUNTY IMPACTS

✦ Provides one established group as the group to go to related to the I/I Control Program.

✦ The County may become the repository of the “master document”. Revisions and updates that change the document would not be through the County Council or a representative of the County Administration, but by the vote of the MWPAAC membership.

✦ King County can work with one entity for resolving I/I Control Program issues.

POTENTIAL PRIVATE PROPERTY/RATEPAYER IMPACTS

- ✦ It may be perceived to be more difficult for individuals to influence changes to the standards if there is a regional group rather than if there is a local administrative or legislative method.
- ✦ Local codes and regulations governing individual waivers and variances would remain intact.

POTENTIAL REGIONAL IMPACTS

- ✦ Standards would be relatively uniform throughout the service area; with the possible exception that non-MWPAAC jurisdictions may make revisions without feeling bound to MWPAAC recommendations.

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